

# NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)  
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: WELLS RANCH AF07-618  
Facility: SEC.08-T05N-R62W Wellbore: WELLS RANCH AF07-618 PWB

Plan reference wellbore is WELLS RANCH AF07-618 PWB (REV.0.0)	Grid System: NAD83 (Lambert Colorado SP Northern Zone (2011, US feet)
True vertical depths are referenced to RIG (2010) (RIG)	North Reference: Grid north
Measured depths are referenced to RIG (2010) (RIG)	Scale: True distance
RIG (2010) (RIG) is Mean Sea Level 4744 feet	Depths are in feet
Mean Sea Level is Mean Sea Level (US Stat) SLOTHO WELLS RANCH AF07-618 (1000FSL & 175FEL, SEC.08) 0 feet	Created by: Larkspur on 2017-08-29
Coordinates are in feet referenced to GSA	Drawn by: Denver

## Location Information

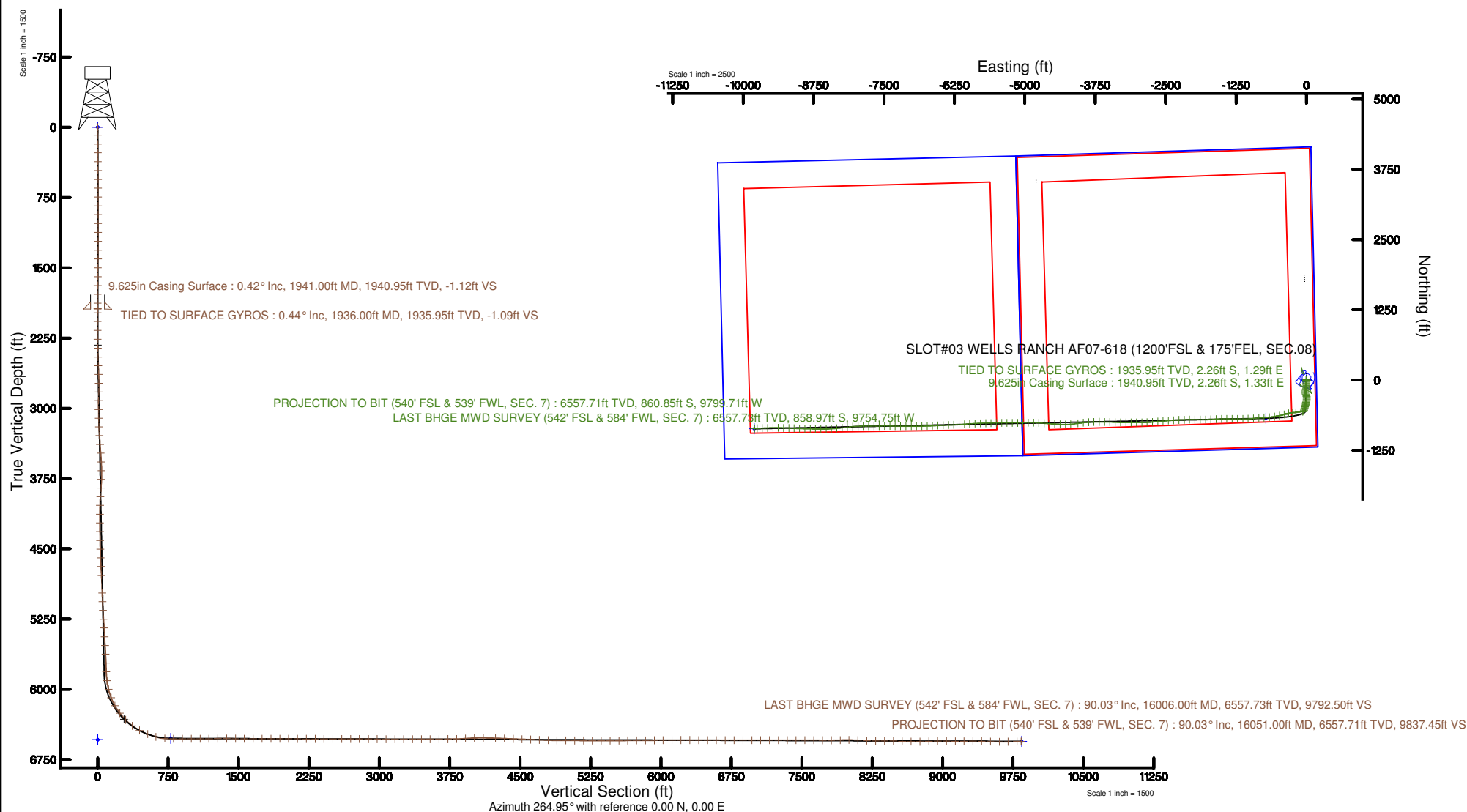
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.08-T05N-R62W			5515888.504	1371865.500	40°51'11.5837N	104°51'16.5877W
Grid	Local E (ft)	Local N (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
(SLOTHO WELLS RANCH AF07-618 (1000FSL & 175FEL, SEC.08)	-200.72	4756.43	5515687.782	1371867.224	40°51'11.5837N	104°51'16.5877W
RIG (2010) (RIG) is Mean Sea Level (US Stat) SLOTHO WELLS RANCH AF07-618 (1000FSL & 175FEL, SEC.08)					4744	
Mean Sea Level is Mean Sea Level (US Stat) SLOTHO WELLS RANCH AF07-618 (1000FSL & 175FEL, SEC.08)					0	
RIG (2010) (RIG) is Mean Sea Level					4744	

**BAKER HUGHES**  
a GE company



BGGM (1900.0 to 2018.0) Dip: 66.96° Field: 52513.1 nT  
Magnetic North is 8.15 degrees East of True North (at 6/6/2017)  
Grid North is 0.75 degrees East of True North  
To correct azimuth from True to Grid subtract 0.75 degrees  
To correct azimuth from Magnetic to Grid add 7.40 degrees

**noble energy**





# Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Cantryat
Scale	0.999961	Report Generated	8/29/2017 at 2:29:33 PM
Convergence at slot	0.75° East	Database/Source file	Denver/WELLS_RANCH_AF07-618_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3522.72	4799.53	3323487.83	1394373.35	40°24'36.504"N	104°20'17.880"W
Facility Reference Pt			3318688.50	1397895.93	40°25'11.928"N	104°21'19.332"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (30'KB) (RKB) to Facility Vertical Datum	4744.00ft
Horizontal Reference Pt	Slot	RIG (30'KB) (RKB) to Mean Sea Level	4744.00ft
Vertical Reference Pt	RIG (30'KB) (RKB)	RIG (30'KB) (RKB) to Mud Line at Slot (SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08))	4744.00ft
MD Reference Pt	RIG (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	264.95°



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

WELLPATH DATA (171 stations)											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
0.00	0.000	132.150	0.00	0.00	0.00	0.00	40°24'36.504"N	104°20'17.880"W	0.00		
84.00	0.210	132.150	84.00	-0.10	-0.10	0.11	40°24'36.503"N	104°20'17.879"W	0.25		
180.00	0.960	223.780	180.00	0.38	-0.80	-0.31	40°24'36.496"N	104°20'17.884"W	1.03		
272.00	0.780	204.040	271.98	1.27	-1.93	-1.10	40°24'36.485"N	104°20'17.895"W	0.38		
366.00	0.250	238.530	365.98	1.76	-2.62	-1.54	40°24'36.478"N	104°20'17.900"W	0.63		
461.00	0.450	227.090	460.98	2.24	-2.98	-1.99	40°24'36.475"N	104°20'17.906"W	0.22		
556.00	0.140	251.160	555.98	2.65	-3.28	-2.37	40°24'36.472"N	104°20'17.911"W	0.34		
650.00	0.340	267.840	649.98	3.04	-3.32	-2.76	40°24'36.472"N	104°20'17.916"W	0.22		
744.00	0.170	335.150	743.98	3.36	-3.21	-3.09	40°24'36.473"N	104°20'17.921"W	0.34		
839.00	0.290	272.490	838.98	3.65	-3.07	-3.39	40°24'36.474"N	104°20'17.924"W	0.27		
933.00	0.250	329.010	932.97	3.98	-2.88	-3.74	40°24'36.476"N	104°20'17.929"W	0.27		
1028.00	0.200	64.240	1027.97	3.91	-2.63	-3.69	40°24'36.478"N	104°20'17.928"W	0.35		
1122.00	0.430	13.330	1121.97	3.65	-2.22	-3.46	40°24'36.483"N	104°20'17.925"W	0.36		
1217.00	0.300	39.860	1216.97	3.36	-1.68	-3.22	40°24'36.488"N	104°20'17.922"W	0.22		
1312.00	0.260	69.930	1311.97	2.97	-1.42	-2.86	40°24'36.490"N	104°20'17.917"W	0.16		
1406.00	0.430	75.150	1405.97	2.42	-1.25	-2.32	40°24'36.492"N	104°20'17.910"W	0.18		
1500.00	0.450	72.170	1499.97	1.71	-1.05	-1.63	40°24'36.494"N	104°20'17.901"W	0.03		
1595.00	0.620	72.550	1594.96	0.85	-0.78	-0.78	40°24'36.496"N	104°20'17.890"W	0.18		
1689.00	0.680	127.900	1688.96	-0.06	-0.97	0.14	40°24'36.494"N	104°20'17.878"W	0.64		
1784.00	0.550	177.920	1783.95	-0.45	-1.77	0.60	40°24'36.486"N	104°20'17.872"W	0.56		
1879.00	0.340	94.740	1878.95	-0.70	-2.25	0.90	40°24'36.482"N	104°20'17.869"W	0.64		
1936.00	0.440	89.500	1935.95	-1.09	-2.26	1.29	40°24'36.481"N	104°20'17.864"W	0.19	TIED TO SURFACE GYROS	
1980.00	0.440	40.520	1979.95	-1.37	-2.13	1.57	40°24'36.483"N	104°20'17.860"W	0.83		
2074.00	0.030	32.970	2073.95	-1.65	-1.84	1.82	40°24'36.486"N	104°20'17.857"W	0.44		
2169.00	1.110	190.000	2168.94	-1.42	-2.72	1.67	40°24'36.477"N	104°20'17.859"W	1.20		
2264.00	3.420	181.160	2263.86	-0.88	-6.46	1.45	40°24'36.440"N	104°20'17.862"W	2.45		
2358.00	5.470	186.800	2357.57	0.35	-13.72	0.87	40°24'36.368"N	104°20'17.871"W	2.23		
2453.00	7.540	191.510	2451.96	3.05	-24.32	-0.91	40°24'36.264"N	104°20'17.896"W	2.25		
2547.00	8.480	190.680	2545.04	6.69	-37.18	-3.43	40°24'36.137"N	104°20'17.931"W	1.01		
2642.00	8.630	184.170	2638.98	9.73	-51.17	-5.25	40°24'35.999"N	104°20'17.956"W	1.03		



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WELLS RANCH AF07-618 AWP

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Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2736.00	8.720	177.390	2731.91	11.16	-65.32	-5.43	40°24'35.859"N	104°20'17.961"W	1.09	
2831.00	8.740	169.270	2825.81	10.75	-79.61	-3.76	40°24'35.718"N	104°20'17.942"W	1.30	
2925.00	9.300	172.790	2918.65	9.76	-94.16	-1.48	40°24'35.574"N	104°20'17.915"W	0.84	
3020.00	9.050	178.370	3012.44	9.92	-109.24	-0.30	40°24'35.425"N	104°20'17.902"W	0.97	
3115.00	9.210	185.540	3106.24	11.76	-124.28	-0.83	40°24'35.276"N	104°20'17.912"W	1.21	
3209.00	8.960	188.670	3199.06	14.88	-139.00	-2.65	40°24'35.131"N	104°20'17.938"W	0.59	
3303.00	8.840	195.520	3291.93	19.15	-153.20	-5.69	40°24'34.991"N	104°20'17.980"W	1.13	
3398.00	7.940	203.740	3385.91	24.88	-166.24	-10.29	40°24'34.863"N	104°20'18.041"W	1.58	
3492.00	9.580	203.900	3478.81	31.79	-179.33	-16.07	40°24'34.734"N	104°20'18.118"W	1.74	
3587.00	10.820	191.230	3572.32	38.12	-195.31	-21.01	40°24'34.577"N	104°20'18.185"W	2.69	
3682.00	12.060	178.660	3665.45	41.26	-213.98	-22.51	40°24'34.393"N	104°20'18.207"W	2.92	
3776.00	11.950	164.940	3757.41	40.20	-233.20	-19.76	40°24'34.202"N	104°20'18.175"W	3.03	
3871.00	9.420	150.360	3850.77	35.25	-249.46	-13.35	40°24'34.041"N	104°20'18.095"W	3.88	
3966.00	9.140	152.940	3944.53	29.19	-262.94	-6.08	40°24'33.907"N	104°20'18.003"W	0.53	
4060.00	8.970	163.620	4037.37	24.95	-276.62	-0.61	40°24'33.771"N	104°20'17.935"W	1.79	
4155.00	8.960	175.870	4131.21	23.62	-291.10	2.01	40°24'33.627"N	104°20'17.903"W	2.01	
4249.00	9.140	177.990	4224.04	24.13	-305.87	2.80	40°24'33.481"N	104°20'17.896"W	0.40	
4343.00	9.200	177.660	4316.84	24.88	-320.83	3.37	40°24'33.333"N	104°20'17.891"W	0.08	
4438.00	9.160	179.410	4410.63	25.83	-335.98	3.76	40°24'33.184"N	104°20'17.888"W	0.30	
4532.00	8.570	188.680	4503.51	28.07	-350.39	2.78	40°24'33.042"N	104°20'17.903"W	1.64	
4627.00	9.210	191.130	4597.37	31.87	-364.85	0.24	40°24'32.899"N	104°20'17.939"W	0.78	
4721.00	9.150	192.060	4690.16	36.16	-379.54	-2.77	40°24'32.754"N	104°20'17.980"W	0.17	
4815.00	9.460	193.990	4782.93	40.88	-394.34	-6.20	40°24'32.608"N	104°20'18.027"W	0.47	
5005.00	8.580	185.620	4970.58	48.60	-423.60	-11.37	40°24'32.320"N	104°20'18.099"W	0.83	
5099.00	7.860	193.180	5063.62	51.91	-436.84	-13.52	40°24'32.189"N	104°20'18.129"W	1.38	
5194.00	8.120	197.780	5157.70	56.54	-449.55	-17.05	40°24'32.064"N	104°20'18.177"W	0.73	
5289.00	8.460	197.780	5251.70	61.86	-462.59	-21.23	40°24'31.936"N	104°20'18.233"W	0.36	
5383.00	8.730	200.160	5344.65	67.58	-475.87	-25.80	40°24'31.805"N	104°20'18.294"W	0.48	
5478.00	8.470	198.530	5438.58	73.45	-489.28	-30.51	40°24'31.674"N	104°20'18.357"W	0.38	
5573.00	8.620	197.880	5532.53	79.02	-502.68	-34.92	40°24'31.542"N	104°20'18.416"W	0.19	



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Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5667.00	8.610	192.650	5625.47	83.91	-516.25	-38.62	40°24'31.408"N	104°20'18.467"W	0.83	
5762.00	8.620	191.860	5719.40	88.14	-530.16	-41.64	40°24'31.271"N	104°20'18.508"W	0.13	
5856.00	8.660	189.220	5812.33	91.93	-544.04	-44.22	40°24'31.134"N	104°20'18.544"W	0.42	
5951.00	8.320	230.190	5906.37	99.35	-555.51	-50.66	40°24'31.022"N	104°20'18.629"W	6.24	
6045.00	13.200	263.040	5998.77	115.69	-561.17	-66.56	40°24'30.968"N	104°20'18.835"W	8.14	
6140.00	21.150	268.070	6089.47	143.69	-563.07	-94.50	40°24'30.953"N	104°20'19.197"W	8.51	
6234.00	29.320	260.450	6174.45	183.64	-567.47	-134.22	40°24'30.914"N	104°20'19.711"W	9.34	
6329.00	37.080	263.730	6253.89	235.55	-574.46	-185.71	40°24'30.852"N	104°20'20.378"W	8.38	
6424.00	44.140	264.380	6325.96	297.33	-580.84	-247.18	40°24'30.797"N	104°20'21.173"W	7.44	
6519.00	52.650	258.240	6389.02	368.08	-591.80	-317.23	40°24'30.698"N	104°20'22.081"W	10.17	
6613.00	63.390	254.280	6438.74	446.74	-610.86	-394.51	40°24'30.519"N	104°20'23.083"W	11.97	
6708.00	68.970	255.730	6477.10	532.30	-633.32	-478.43	40°24'30.308"N	104°20'24.171"W	6.04	
6802.00	73.500	261.600	6507.35	620.71	-650.74	-565.64	40°24'30.147"N	104°20'25.302"W	7.63	
6897.00	85.840	265.760	6524.36	713.95	-660.94	-658.34	40°24'30.059"N	104°20'26.501"W	13.68	
6991.00	90.340	265.900	6527.49	807.86	-667.76	-752.01	40°24'30.003"N	104°20'27.713"W	4.79	
7086.00	90.310	264.200	6526.95	902.85	-675.96	-846.65	40°24'29.934"N	104°20'28.938"W	1.79	
7180.00	90.000	265.750	6526.70	996.85	-684.19	-940.29	40°24'29.865"N	104°20'30.150"W	1.68	
7275.00	90.030	268.820	6526.67	1091.76	-688.69	-1035.17	40°24'29.833"N	104°20'31.377"W	3.23	
7369.00	90.370	270.060	6526.35	1185.47	-689.61	-1129.16	40°24'29.836"N	104°20'32.592"W	1.37	
7464.00	90.250	269.980	6525.83	1280.10	-689.58	-1224.16	40°24'29.849"N	104°20'33.820"W	0.15	
7558.00	89.880	270.410	6525.72	1373.70	-689.26	-1318.16	40°24'29.864"N	104°20'35.035"W	0.60	
7653.00	89.720	268.920	6526.06	1468.38	-689.82	-1413.15	40°24'29.871"N	104°20'36.263"W	1.58	
7747.00	89.690	268.190	6526.54	1562.19	-692.19	-1507.12	40°24'29.859"N	104°20'37.478"W	0.78	
7842.00	89.630	267.640	6527.10	1657.06	-695.64	-1602.06	40°24'29.837"N	104°20'38.706"W	0.58	
7937.00	89.910	267.580	6527.49	1751.96	-699.60	-1696.97	40°24'29.810"N	104°20'39.933"W	0.30	
8031.00	90.030	269.160	6527.53	1845.79	-702.28	-1790.93	40°24'29.796"N	104°20'41.148"W	1.69	
8126.00	89.750	269.810	6527.72	1940.49	-703.13	-1885.93	40°24'29.800"N	104°20'42.376"W	0.74	
8220.00	89.910	270.250	6528.00	2034.12	-703.08	-1979.93	40°24'29.813"N	104°20'43.591"W	0.50	
8315.00	89.780	269.140	6528.25	2128.79	-703.59	-2074.92	40°24'29.820"N	104°20'44.819"W	1.18	
8409.00	89.970	268.120	6528.46	2222.60	-705.83	-2168.90	40°24'29.810"N	104°20'46.034"W	1.10	



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

## WELLPATH DATA (171 stations)

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8504.00	89.780	267.530	6528.67	2317.48	-709.44	-2263.83	40°24'29.786"N	104°20'47.262"W	0.65	
8598.00	89.880	266.600	6528.94	2411.41	-714.25	-2357.70	40°24'29.751"N	104°20'48.476"W	1.00	
8692.00	89.820	265.300	6529.19	2505.40	-720.89	-2451.46	40°24'29.697"N	104°20'49.689"W	1.38	
8787.00	89.820	265.050	6529.49	2600.39	-728.88	-2546.13	40°24'29.630"N	104°20'50.914"W	0.26	
8881.00	89.780	264.660	6529.82	2694.39	-737.31	-2639.75	40°24'29.559"N	104°20'52.126"W	0.42	
8975.00	89.720	265.650	6530.23	2788.39	-745.25	-2733.41	40°24'29.493"N	104°20'53.338"W	1.06	
9070.00	89.720	266.720	6530.69	2883.37	-751.57	-2828.20	40°24'29.442"N	104°20'54.564"W	1.13	
9164.00	89.850	269.560	6531.04	2977.21	-754.62	-2922.14	40°24'29.424"N	104°20'55.779"W	3.02	
9259.00	89.780	270.050	6531.35	3071.87	-754.95	-3017.14	40°24'29.433"N	104°20'57.007"W	0.52	
9353.00	89.850	269.890	6531.65	3165.51	-755.00	-3111.14	40°24'29.445"N	104°20'58.222"W	0.19	
9448.00	89.820	271.110	6531.93	3260.06	-754.17	-3206.13	40°24'29.465"N	104°20'59.450"W	1.28	
9543.00	89.880	271.990	6532.18	3354.43	-751.60	-3301.09	40°24'29.503"N	104°21'00.677"W	0.93	
9637.00	89.880	271.740	6532.37	3447.75	-748.54	-3395.04	40°24'29.545"N	104°21'01.891"W	0.27	
9732.00	89.750	271.540	6532.68	3542.10	-745.82	-3490.00	40°24'29.584"N	104°21'03.118"W	0.25	
9826.00	90.650	271.070	6532.35	3635.52	-743.68	-3583.98	40°24'29.617"N	104°21'04.332"W	1.08	
9921.00	90.890	269.890	6531.08	3730.07	-742.88	-3678.96	40°24'29.637"N	104°21'05.559"W	1.27	
10015.00	90.980	267.660	6529.54	3823.84	-744.89	-3772.92	40°24'29.629"N	104°21'06.774"W	2.37	
10110.00	94.620	267.140	6524.90	3918.62	-749.19	-3867.70	40°24'29.599"N	104°21'08.000"W	3.87	
10204.00	92.150	263.990	6519.35	4012.43	-756.45	-3961.23	40°24'29.539"N	104°21'09.210"W	4.25	
10299.00	89.450	260.630	6518.02	4107.30	-769.16	-4055.35	40°24'29.426"N	104°21'10.429"W	4.54	
10429.00	87.660	264.320	6521.30	4237.11	-786.18	-4184.16	40°24'29.274"N	104°21'12.097"W	3.15	
10524.00	87.750	269.770	6525.11	4331.94	-791.07	-4278.92	40°24'29.238"N	104°21'13.323"W	5.73	
10619.00	87.880	273.380	6528.73	4426.22	-788.46	-4373.80	40°24'29.276"N	104°21'14.548"W	3.80	
10713.00	87.940	274.100	6532.16	4519.05	-782.33	-4467.54	40°24'29.348"N	104°21'15.759"W	0.77	
10808.00	87.910	274.670	6535.60	4612.70	-775.07	-4562.20	40°24'29.432"N	104°21'16.981"W	0.60	
10902.00	87.850	274.450	6539.08	4705.32	-767.61	-4655.83	40°24'29.518"N	104°21'18.191"W	0.24	
10997.00	88.090	273.090	6542.44	4799.14	-761.36	-4750.57	40°24'29.592"N	104°21'19.414"W	1.45	
11091.00	89.600	271.440	6544.34	4892.35	-757.65	-4844.47	40°24'29.640"N	104°21'20.627"W	2.38	
11186.00	89.630	269.000	6544.98	4986.94	-757.29	-4939.46	40°24'29.656"N	104°21'21.855"W	2.57	
11280.00	89.600	268.120	6545.61	5080.75	-759.65	-5033.43	40°24'29.645"N	104°21'23.070"W	0.94	



# Actual Wellpath Report

WELLS RANCH AF07-618 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11375.00	89.630	269.400	6546.25	5175.53	-761.70	-5128.40	40°24'29.636"N	104°21'24.298"W	1.35	
11469.00	89.940	270.620	6546.60	5269.17	-761.69	-5222.40	40°24'29.649"N	104°21'25.513"W	1.34	
11564.00	89.940	269.600	6546.70	5363.78	-761.50	-5317.39	40°24'29.662"N	104°21'26.741"W	1.07	
11658.00	89.940	268.940	6546.80	5457.51	-762.70	-5411.39	40°24'29.663"N	104°21'27.956"W	0.70	
11753.00	90.460	269.610	6546.47	5552.24	-763.90	-5506.38	40°24'29.663"N	104°21'29.184"W	0.89	
11847.00	90.310	268.680	6545.83	5645.99	-765.31	-5600.36	40°24'29.661"N	104°21'30.399"W	1.00	
11941.00	90.310	268.680	6545.33	5739.79	-767.47	-5694.34	40°24'29.651"N	104°21'31.614"W	0.00	
12036.00	90.520	268.220	6544.64	5834.61	-770.04	-5789.30	40°24'29.638"N	104°21'32.842"W	0.53	
12131.00	90.860	267.230	6543.49	5929.49	-773.81	-5884.22	40°24'29.613"N	104°21'34.069"W	1.10	
12225.00	90.680	265.960	6542.23	6023.44	-779.40	-5978.04	40°24'29.570"N	104°21'35.283"W	1.36	
12320.00	90.280	265.910	6541.43	6118.42	-786.13	-6072.80	40°24'29.515"N	104°21'36.509"W	0.42	
12414.00	90.090	267.260	6541.13	6212.38	-791.73	-6166.63	40°24'29.472"N	104°21'37.723"W	1.45	
12509.00	89.880	267.820	6541.16	6307.28	-795.81	-6261.54	40°24'29.444"N	104°21'38.950"W	0.63	
12603.00	89.910	267.880	6541.33	6401.16	-799.33	-6355.47	40°24'29.421"N	104°21'40.165"W	0.07	
12698.00	89.970	268.110	6541.43	6496.03	-802.66	-6450.42	40°24'29.400"N	104°21'41.393"W	0.25	
12792.00	89.820	266.690	6541.60	6589.94	-806.92	-6544.32	40°24'29.370"N	104°21'42.607"W	1.52	
12887.00	89.910	266.820	6541.82	6684.89	-812.30	-6639.16	40°24'29.328"N	104°21'43.834"W	0.17	
12982.00	89.940	268.460	6541.95	6779.78	-816.21	-6734.08	40°24'29.302"N	104°21'45.062"W	1.73	
13076.00	89.940	269.520	6542.05	6873.55	-817.87	-6828.06	40°24'29.297"N	104°21'46.277"W	1.13	
13171.00	90.000	269.830	6542.10	6968.22	-818.41	-6923.06	40°24'29.304"N	104°21'47.505"W	0.33	
13265.00	89.880	269.860	6542.19	7061.88	-818.66	-7017.06	40°24'29.314"N	104°21'48.720"W	0.13	
13360.00	89.940	270.100	6542.34	7156.52	-818.69	-7112.06	40°24'29.325"N	104°21'49.948"W	0.26	
13454.00	89.850	269.950	6542.52	7250.15	-818.65	-7206.06	40°24'29.338"N	104°21'51.163"W	0.19	
13549.00	89.910	270.990	6542.72	7344.71	-817.87	-7301.06	40°24'29.357"N	104°21'52.391"W	1.10	
13643.00	89.880	270.600	6542.89	7438.22	-816.57	-7395.05	40°24'29.382"N	104°21'53.605"W	0.42	
13738.00	90.150	269.150	6542.86	7532.86	-816.78	-7490.04	40°24'29.392"N	104°21'54.833"W	1.55	
13832.00	89.910	268.720	6542.81	7626.64	-818.52	-7584.03	40°24'29.387"N	104°21'56.048"W	0.52	
13927.00	88.980	269.360	6543.73	7721.39	-820.11	-7679.01	40°24'29.383"N	104°21'57.276"W	1.19	
14021.00	90.950	270.350	6543.79	7815.04	-820.35	-7773.00	40°24'29.392"N	104°21'58.491"W	2.35	
14116.00	91.850	269.870	6541.47	7909.62	-820.17	-7867.97	40°24'29.406"N	104°21'59.719"W	1.07	



# Actual Wellpath Report

WELLS RANCH AF07-618 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14210.00	89.480	266.890	6540.38	8003.43	-822.83	-7961.91	40°24'29.392"N	104°22'00.934"W	4.05	
14304.00	87.380	264.350	6542.95	8097.38	-830.00	-8055.59	40°24'29.333"N	104°22'02.146"W	3.51	
14399.00	87.600	264.730	6547.12	8192.28	-839.03	-8150.07	40°24'29.255"N	104°22'03.368"W	0.46	
14494.00	89.050	264.530	6549.89	8287.24	-847.92	-8244.61	40°24'29.180"N	104°22'04.592"W	1.54	
14588.00	91.510	264.820	6549.43	8381.23	-856.64	-8338.19	40°24'29.105"N	104°22'05.803"W	2.64	
14683.00	87.290	265.720	6550.43	8476.20	-864.47	-8432.84	40°24'29.040"N	104°22'07.028"W	4.54	
14777.00	87.380	268.970	6554.80	8570.00	-868.82	-8526.63	40°24'29.009"N	104°22'08.241"W	3.46	
14872.00	88.830	269.990	6557.94	8664.65	-869.68	-8621.57	40°24'29.012"N	104°22'09.468"W	1.87	
14967.00	90.950	271.100	6558.12	8759.19	-868.78	-8716.56	40°24'29.033"N	104°22'10.696"W	2.52	
15061.00	93.080	271.050	6554.82	8852.59	-867.02	-8810.48	40°24'29.062"N	104°22'11.909"W	2.27	
15156.00	90.610	271.740	6551.76	8946.94	-864.71	-8905.39	40°24'29.097"N	104°22'13.136"W	2.70	
15250.00	87.880	272.090	6553.00	9040.23	-861.57	-8999.32	40°24'29.140"N	104°22'14.349"W	2.93	
15345.00	89.420	272.120	6555.24	9134.46	-858.08	-9094.23	40°24'29.186"N	104°22'15.576"W	1.62	
15439.00	91.420	271.710	6554.55	9227.76	-854.94	-9188.17	40°24'29.229"N	104°22'16.789"W	2.17	
15534.00	90.800	272.190	6552.71	9322.03	-851.70	-9283.09	40°24'29.273"N	104°22'18.016"W	0.83	
15628.00	88.000	271.340	6553.69	9415.35	-848.81	-9377.03	40°24'29.313"N	104°22'19.230"W	3.11	
15722.00	88.250	268.510	6556.77	9508.94	-848.93	-9470.97	40°24'29.324"N	104°22'20.444"W	3.02	
15817.00	89.050	267.580	6559.01	9603.77	-852.17	-9565.89	40°24'29.304"N	104°22'21.671"W	1.29	
15911.00	91.230	268.280	6558.78	9697.64	-855.57	-9659.82	40°24'29.282"N	104°22'22.886"W	2.44	
16006.00	90.030	267.610	6557.73	9792.50	-858.97	-9754.75	40°24'29.260"N	104°22'24.114"W	1.45	LAST BHGE MWD SURVEY (542' FSL & 584' FWL, SEC. 7)
16051.00	90.030	267.610	6557.71	9837.45	-860.85	-9799.71	40°24'29.247"N	104°22'24.695"W	0.00	PROJECTION TO BIT (540' FSL & 539' FWL, SEC. 7)

HOLE & CASING SECTIONS - Ref Wellbore: WELLS RANCH AF07-618 AWB Ref Wellpath: WELLS RANCH AF07-618 AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	30.00	1941.00	1911.00	30.00	1940.95	-0.01	0.01	-2.26	1.33
8.5in Open Hole	30.00	16051.00	16021.00	30.00	6557.71	-0.01	0.01	-860.85	-9799.71





# Actual Wellpath Report

WELLS RANCH AF07-618 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWB
Facility	SEC.08-T05N-R62W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.07-T05N-R62W	0.00	0.00	0.00	3323487.83	1394373.35	40°24'36.504"N	104°20'17.880"W	polygon
SEC.08-T05N-R62W	0.00	0.00	0.00	3323487.83	1394373.35	40°24'36.504"N	104°20'17.880"W	polygon
WELLS RANCH AF07-618 LANDING POINT REV-2	6523.00	-680.00	-720.00	3322767.86	1393693.38	40°24'29.878"N	104°20'27.302"W	point
SEC.07-T05N-R62W 460' SETBACKS	6537.00	0.00	0.00	3323487.83	1394373.35	40°24'36.504"N	104°20'17.880"W	polygon
SEC.08-T05N-R62W 460'SETBACKS	6537.00	0.00	0.00	3323487.83	1394373.35	40°24'36.504"N	104°20'17.880"W	polygon
WELLS RANCH AF07-618 BHL REV-2 (535'FSL & 535'FWL, SEC.07)	6554.71	-866.11	-9803.43	3313684.81	1393507.28	40°24'29.196"N	104°22'24.744"W	point

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH AF07-618 AWB Ref Wellpath: WELLS RANCH AF07-618 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1936.00	Gyrodata standard - Drop gyro or Multi-shot	Surface Gyros <84'-1936'>	WELLS RANCH AF07-618 AWB
1936.00	16006.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI/ATCurve 8.5" Hole OWSG+IFR+MSA <1980'-16006'>	WELLS RANCH AF07-618 AWB
16006.00	16051.00	Blind Drilling (std)	Projection to bit	WELLS RANCH AF07-618 AWB



## Actual Wellpath Report

WELLS RANCH AF07-618 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 WELLS RANCH AF07-618 (1200'FSL & 175'FEL, SEC.08)
Area	COLORADO	Well	WELLS RANCH AF07-618
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AF07-618 AWP
Facility	SEC.08-T05N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1936.00	0.440	89.500	1935.95	TIED TO SURFACE GYROS
16006.00	90.030	267.610	6557.73	LAST BHGE MWD SURVEY (542' FSL & 584' FWL, SEC. 7)
16051.00	90.030	267.610	6557.71	PROJECTION TO BIT (540' FSL & 539' FWL, SEC. 7)

COMMENTS	
<b>Wellpath general comments</b> SURFACE LOCATION: NESE 40.41014N 104.3383W API: 05-123-44244	